Abstract

SiH_3CH_3 having the concentration of 1 to 10% is diluted with H_2 and a portion of the diluted SiH_3CH_3, GeH_4 and SiH_4(or DCS) are respectively supplied to a chamber of an epitaxial device at predetermined flow rates, and SiGe:C is formed by an epitaxial growth technique. By diluting the SiH_3CH_3, the concentration of oxygen-based impurity contained in the SiH_3CH_3 is reduced and hence, the oxygen-based impurity which is supplied to a chamber are reduced whereby the concentration of oxygen-based impurity contained in the SiGe:C formed in a film is reduced.